R·I·T

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Problem Definition Review Notes

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- Data-first column is Z (distance in cm), second is voltage
- The Network Analyzer will call start of rectangle as 0 instead of the start of where zl (first value of z accounts for this) is so you have to normalize it
- First min should be at -25 for theoretical
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    - Blue goes to maximum so it's open (for lab)-chart should start at 0, not -10
    - λ/2 is 0.25
    - Also plot theoretical, should start at 0, make sure to normalize it
    - Can only get s11 and s21 (transmission) data from Network Analyzer-our MATLAB code needs to convert it for the data and graph
    - 1+ reflection=transmission
    - First need to figure out what you want out of Network Analyzer
    - 100% reliability means results are exactly how they currently are from the system
        - What's on GUI needs to exactly match Network Analyzer
    - Easy to follow user interface-friendly
    - Easy to use
    - Take readings every 0.5mm-that's why it's called half step
    - Stepper motor determines sampling rate as opposed to a DC motor which runs continuously and you can set sampling rate through the MATLAB program
    - Accessible without being too accessible to students
    - $500 budget is flexible-expect about $1,200-1,500
    - Purchase from companies we know will be around for a while
        - Don't purchase from some random company on eBay from Taiwan
    - Dave Hathaway might be good with materials for fixture
    - Don't like that the impedance on LABVIEW UI doesn't matter what you choose…it's just there and doesn't do anything so it doesn't need to be there
    - Just have start, stop, run that takes control of Network Analyzer
    - Likes dual plotting capability
    - No redundant buttons!
    - Would like to have MATLAB program identify if you did short, or open when you save data so that it shows on the data-unless you have to remove it when you upload into MATLAB for plotting
    - Have someone who has no idea what they are doing do the lab with user's manual to see where things are unclear
    - We could observe lab on March 17th
        - Tuesdays before and after spring break
        - 8-10, 12-2, 2-4

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